REMARKS

Claims 19-46 were pending prior to this response. By the present communication, claim 19 has been further amended to more particularly define Applicants' invention. The amendments to these claims are set forth in the attached "Version With Markings To Show Changes Made" (Exhibit A). The amendments add no new matter, the claim amendments being fully supported by the specification and pending claims. Accordingly, claims 19-46 are currently pending.

Rejection Under 35 U.S.C. 102(b)

The rejection of claims 19-21, 35, and 37 under 35 U.S.C. 102(b), as allegedly being anticipated by Abeijon, et. al. (Proc. Natl. Acad. Sci. USA 93:5963-5968, 1993; hereinafter "Abeijon"), is respectfully traversed. Applicants' invention method for identifying a bioactivity or biomolecule of interest using high throughput screening, as defined by amended claim 19, distinguishes over Abeijon by requiring:

a) contacting a bioactive substrate that is fluorescent in the presence of the bioactivity or biomolecule of interest with a library containing a plurality of clones containing naturally occurring DNA from at least one organism;

b) screening the library with a fluorescent analyzer that detects bioactive fluorescence, and

c) identifying clones detected as positive for bioactive fluorescence, wherein fluorescence is indicative of naturally occurring DNA that encodes a bioactivity or biomolecule of interest."

By contrast, Abeijon is completely silent regarding a method for identifying clones that contain naturally occurring DNA that encodes a bioactivity or biomolecule of interest. As the Examiner acknowledges, in the method of Abeijon, *K. lactis* mutant cells transformed with a wild-type *K. lactis* genomic library are contacted with fluorescein isothiocyanate conjugated to *Griffonia simplificonia* lectin and screened for cells that bind terminal N-acetylglucosamine

(Office Action, pages 2-3). Thus, the clones in the library disclosed by Abeijon contain mutant DNA as well as wild-type DNA and is not, therefore, "naturally occurring". Thus, the method disclosed by Abeijon results in detection of combinatorially produced target molecule, and not Applicants' method for discovery of molecules produced by naturally occurring DNA.

Moreover, Abeijon fails to suggest screening of naturally occurring DNA from one or more organisms to locate those that encode an activity of interest. Abeijon was solely concerned with complementation of the genomic DNA of the mutant strain with genomic DNA from the wild-type organism to clone the gene encoding the Golgi transporter, thus confirming a hypothesis concerning the DNA responsible for an observed phenotype in the mutant strain. Because Abeijon's method was carefully controlled to result in a single outcome, (i.e., separation of clones in which complementation occurred from those in which complementation had not occurred), Abeijon fails to suggest the invention methods, as defined by amended claim 19, for fluorescence screening of naturally occurring DNA from at least one organism to identify a bioactivity or biomolecule of interest.

Therefore, Abeijon fails to teach each and every element of Applicants' method as defined by amended claim 19 as would be required to constitute anticipation under 35 U.S.C. 102(b). Accordingly, reconsideration and withdrawal of the rejection of claims 19-21, 35, and 37 under 35 USC § 102(b) are respectfully requested.

In view of the amendments and the above remarks, it is submitted that the claims are in condition for allowance and a notice to that effect is respectfully requested. The Examiner is invited to contact Applicants' undersigned representative if there are any questions relating to this application.

The Commissioner is authorized to charge any fee (or credit any overpayment) to Deposit Acct. No. 50-1355.

Respectfully submitted,

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Enclosure: Exhibit A

Exhibit A

Version with markings to show changes made

19. (Thrice Amended) A method for identifying a bioactivity or biomolecule of interest using high throughput screening of DNA comprising:

a) contacting a bioactive substrate that is fluorescent in the presence of the bioactivity or biomolecule of interest with a library containing a plurality of clones containing naturally occurring DNA from at least one organism;

b) screening the library with a fluorescent analyzer that detects bioactive fluorescence, and

c) identifying clones detected as positive for bioactive fluorescence, wherein fluorescence is indicative of naturally occurring DNA that encodes a bioactivity or biomolecule of interest.